

***This is only a **preview** of the exam statements for the Training & Experience Evaluation. You will be asked to respond to each statement indicating how your training and experience relate to each. **To take the actual exam**, please refer back to the bulletin and click the link at the bottom of the bulletin.

Training and Experience Evaluation

Transportation Engineer (Civil)

CalTrans

The California civil service selection system is merit-based and eligibility for appointment is established through a formal examination process. This examination consists of a Training and Experience evaluation used to evaluate your education, training and experience relevant to the position.

This Training and Experience evaluation is a scored component accounting for 100% of your rating in the examination process. It is important to complete the evaluation carefully and accurately. Your responses are subject to verification before appointment to a position.

Number of Questions: 1 – 43

To answer all the test items in this exam, you will be required to choose from among the provided answers.

INSTRUCTIONS

Education

Answer “Yes” or “No” to questions 1 and 2. Not answering a question will be scored as a “No” answer.

1. Passed Engineer-In-Training (EIT) Examination
2. Undergraduate or graduate degree with emphasis in civil engineering completed or will be completed within one year

Work Experience

For question 3, check one of the following to indicate your response:

A – More than 1 year of experience

B – Less than 1 year of experience

C – No experience

In evaluating the amount of experience you have (paid or voluntary), all part-time and intermittent experience must be converted to full-time equivalency. Full-time is defined as 40 hours per week. Not answering this question will be score as a “No experience” answer.

3. Engineering Experience

GENERAL SKILLS

Answer “Yes” or “No” to questions 4 – 22. Not answering a question will be scored as a “No” answer.

IN YOUR RESPONSES, YOU MAY INCLUDE COLLEGE, AND PAID OR VOLUNTARY EXPERIENCE.

Communication Skills

4. Have you prepared and/or given a presentation about a project in which you were involved?
5. Have you spoken before a group regarding an engineering idea or project?
6. Have you led or facilitated a group or team?
7. Have you collected engineering data and/or conducted engineering research?
8. Have you been positively recognized (i.e., instructor’s comments written on a paper, performance evaluation, letter of recognition, other written communication, etc.) for your skill in writing research or other report documents?

Project Leadership Skills

9. Have you completed classes in project or construction management skills, techniques, and tools?
10. Have you devised an alternate plan due to a setback or changing priorities to allow you to complete a project on time?
11. Have you had to deal with changing or conflicting customer demands?
12. Have you directed or led the work of individuals or members of a team?
13. Have you served on a committee that made decisions on behalf of a group (i.e., homeowners association, student government, etc.)?
14. Have you juggled two or more assignments and completed them on time?
15. Have you been actively involved in planning, prioritizing, or scheduling the work of a small group (i.e., volunteer group, athletic team, parent association, fundraiser, or school or professional group)?

16. Have you been responsible for the planning or implementation of a complex and long-term work or school project involving many steps and a significant amount of time?
17. Have you been a member of an engineering association or group?

Interpersonal Skills

18. Have you provided mentoring or tutoring to another individual?
19. Have you ever had to resolve a conflict between two individuals?
20. Have you had experience in handling problems or complaints where you had to remain calm, courteous, and tactful?
21. Have you participated in the design of a project competition with other colleges or organizations (i.e., an experimental vehicle, parade float, bridge, or concrete canoe)?
22. Have you had experience in interacting with people from other countries or from different cultural backgrounds?

TECHNICAL SKILLS

Use the following ratings to respond to the next four questions under Personal Computer Skills below:

- a. I am proficient in the use of advanced feature in the following products.
- b. I am proficient in the use of basic features in the following products.
- c. I have minimal or no experience with the following products.

Not answering a question will be score as an "I have minimal or no experience with the following products" answer.

IN YOUR RESPONSES, YOU MAY INCLUDE COLLEGE, AND PAID OR VOLUNTARY EXPERIENCE.

Computer Skills

23. Spreadsheet software
24. Database software
25. Word processing software
26. Project management software

Use the following ratings to respond to all remaining questions in the Technical Skills section:

- A. I am technically proficient to the point where I can perform this task independently.
- B. I have received education or training, but would need guidance to perform this task.
- C. I have received little or no education or training in this task.

Not answering a question will be scored as an “I have received little or no education or training in this task” answer.

IN YOUR RESPONSES, YOU MAY INCLUDE COLLEGE, AND PAID OR VOLUNTARY EXPERIENCE.

Structure Skills

- 27. Reinforced concrete design and analysis
- 28. Structural steel design and analysis
- 29. Analysis of soils for foundation design
- 30. Application of seismic principles

Construction Skills

- 31. Use of critical path method to develop a project schedule
- 32. Perform a field survey (i.e., traverses, levels, etc.)
- 33. Read and interpret construction plans

Highway Design Skills

- 34. Calculation of quantities from a set of project plans to establish an estimate of cost
- 35. Roadway geometric design (i.e., horizontal and vertical curves, superelevation, etc.)
- 36. Soil erosion control plan development, which is required during all phases of construction
- 37. Design and analyze drainage systems
- 38. Roadway pavement structural section design and analysis
- 39. Slope stabilization design and analysis

Environmental Skills

- 40. Use of engineering study required for an environmental report (i.e., noise, air, water, traffic, etc.)

Traffic Skills

- 41. Use of traffic engineering methods for determination of origin and destination of traffic
- 42. Use of traffic engineering principles, such as traffic flow theory (i.e., volumes, capacity, delay, etc.)
- 43. Use of traffic engineering principles for analyzing the cause of and mitigation for traffic accidents